

Title of Invention

Bills Scanner and Financial Organizer

Inventors

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Cross-Reference to Related Applications

US Patent 6,240,216	“Method and apparatus for processing an image, storage medium for storing an image processing program ” by Naoyuki Nemoto & Hiroyasu Takahashi, dated May 29, 2001.
US Patent 5,604,640	“Business card scanner and method of use” by Mary J. Zipf; & Karen E. Jachimowicz;; dated February 18, 1997.
US Patent 5,644,663	“Portable image scanner having manual or automatic feed” by Hidemi Saito; Takashi Kanda; Yoshihito Iida; Naoto Mochizuki;; dated July 1, 1997.
US Patent 6,115,241	“Attachment of a mobile scanner to a portable computer” by Darwin Hu, dated September 5, 2000.
US Patent 5,897,625	“Automated document cashing system” by Robin Haley Gustin; Troy W. Livingston; Namsoo Park; dated April 27, 1999.

Parent Case Text

This is a continuation of U.S. Application Number 60/265,406, filed on Feb. 1, 2001, which is a provisional patent application.

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to a scanner apparatus to scan bills into a computer and a software program which automatically organizes all the information that can be viewed in various formats, namely, tabular statements, pie-charts, etc and allows for record keeping, budgeting and reconciliation.

Description of the Related Art

Almost everybody might have wondered at one time or other about where his/her salary is going. Many people think “Although I make more than enough money, I do not know how I am spending it”.

You might have attempted to keep track of how you were spending by saving all the receipts, checks, bills and notes about cash transactions, etc. You patiently entered all the bills into the computer (namely into one of the budgeting or finance managing software programs). This is very laborious and time consuming and after a while you will lose patience and stop entering the data. There ends the plan to know where your salary is going.

Now, with this invention, you can stop wasting your time typing. Simply take your file of bills and feed them into the scanner. Within seconds after scanning the bills, the software organizes all the information into a file on your computer that can be viewed in various formats. It's fast, easy, and convenient. Once the bills are scanned into your computer, you can use the software to manage your expense information.

A thorough patent search resulted in the following related patents but none of them has proposed so far the idea proposed in this invention. For example, the US Patent 6,240,216 entitled “Method and apparatus for processing an image, storage medium for storing an image processing program” relates to an image method and more particularly to mask

processing (noise reduction, smoothing of a pattern or the like) of binary image data by software.

There are a number of different kinds of scanners commercially available and have been patented. However, none of them are of the type described in this invention. When a bill is fed or inserted the scanner of this invention automatically grabs and moves the bill while it is being scanned and stops at the completion of the scanning of the bill. In addition, the data is automatically captured and organized into a database which allows the data scanned to be viewable in a number of predefined formats which also can be customized if desired.

The prior art references describe excellent applicability to various purposes other than the purpose the present invention is intended. For instance, the US Patent 5,604,640 entitled "Business card scanner and method of use" relates, in general, to optoelectronic devices and, in particular, to scanning mixed media information cards, storing the information, and displaying the scanned information in a variety of display formats. However, feeding and scanning of bills and having associated software program to organize the data is not dealt with.

The US Patent 5,644,663 entitled "Portable image scanner having manual or automatic feed" relates to an image scanner for automatically scanning a document to optically read out and output image data that is on the document to an image processing device such as a computer, and more particularly to a portable image scanner capable of selectively uniting a cover member to a scanner body to feed a cut-sheet document to be scanned, or detaching the cover member from the scanner body to move the independent scanner body on a thick document such as a book.

The US Patent 6,115,241 entitled "Attachment of a mobile scanner to a portable computer" generally relates to a portable scanning system and more particularly to a versatile attachment of a mobile scanner to a portable computer.

The US Patent 5,897,625 entitled "Automated document cashing system" relates to automated banking systems and machines including those which employ or are an improvement on automatic teller machines (ATMs). These systems perform the usual ATM functions and additionally cash money orders and checks for the user without the presence or the assistance of a teller, allow the depositing of cash into the machine and provide additional functions, such as transferring money by wire, depositing cash into an account or purchasing end user items from the machine.

The US Patent 5,920,877 entitled "Text acquisition and organizing system" relates to apparatus for acquiring and manipulating text and, more particularly, to apparatus for acquiring discrete text strings and automatically formatting those text strings, as they are received, into a preselected data format structure. There are a number of situations in which a researcher or reader may desire to record and organize printed or displayed text included in an existing work for future reference or for some other future use. As used herein, the term "text" is meant to encompass information that is intended for presentation for human comprehension and may comprise symbols, phrases, sentences in natural or artificial language, pictures, diagrams, and tables.

There has not been proposed so far a configuration consisting of a scanner and a software program in order to achieve the purpose described by the subject patent. Thus, none of the prior art references proposed the idea of this invention.

SUMMARY OF THE INVENTION

This is a continuation of U.S. Application Number 60/265,406, filed on Feb. 1, 2001, which is a provisional patent application. Briefly stated, it is an apparatus to scan bills with a unique software which automatically organizes all the information from the scanned bills. It contains a scanner which is connected to a computer through a Universal Serial Bus (USB) port or pass thru parallel port and the unique software program loaded into the program. As the bills are being scanned, all the information from the scanned bills is automatically entered into the computer. You need to insert one bill at a time into this scanner. The bills can be either grocery receipts, various purchase receipts, credit card bills, bank statements, etc. It automatically collects all the data from the bills you have just scanned, processes and organizes all the information. The software categorizes each transaction, so you have instant insight into your expenses. You always know exactly where your money goes. It creates reports including Income-Expense, Cash Flow, Budget, etc. It instantly lets you customize, sort, and subtotal report information on-screen and shows where any amount in a report comes from. It shows a clear picture of your expenses with a number of instant graphs. The organized data can also be viewed in tabular form or pie-chart form, etc. The apparatus allows editing the information from the scanned bills. The apparatus also automatically saves the information scanned from the bills in the Quicken Interchange Format (QIF), allowing it to be imported by any financial management program like Quicken, Money, etc; Each scanned bill will be turned into an individual transaction. The multiple items in the bill will be used to create a "split" transaction with proper customizable categories. The software loaded into the computer allows for record keeping, budgeting and reconciliation.

For example, making a budget is easy but adhering/implementing it is difficult, but not when you use the system of this invention. Software enables you to create a budget. Once you start scanning the bills, it lets you know at any time where you stand with respect to your budget,

whether you kept up or you need adjustment. A budget lets you set a goal for the amount of money you want to spend in a particular category - for example, \$100 per month for entertainment. Then you can run a monthly budget report to compare the budgeted amount to the actual amount that you spent.

The software allows the data from the bills to be presented in various formats. For example, a list of all the items you have purchased; another list of items you bought from a particular department store; how many times you visited a particular restaurant and how much you spent each time; how much you spent for clothes versus food versus eating outside, etc.

Thus, the software is a simple-to-use financial organizer where all bill information gets organized into an easily useable format. The software has lots of features to make your life easier. It allows you to find any expense. You can also add notes to the transactions. The semi-processed data can be imported into one of the your already existing or familiar programs like Quicken, Money, etc.

Other and further features of this invention will become obvious upon an understanding of the illustrative embodiments about to be described or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

BRIEF DESCRIPTION OF THE DRAWING

An embodiment of the present invention will be described hereinafter with reference to the accompanying drawing, in which:

Figure 1: is a schematic block diagram illustrating the overall arrangement of the scanner and the computer with associated monitor, printer, etc. This overall arrangement is a representative embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The system as illustrated in Fig.1 contains the scanner 1 and the software. The scanner 1 is different from conventional large size scanners you might have seen in some offices or in copying shops. It is a small, light-weight and portable one, and has cables that connect to power outlet for its power and to a computer 2 for communicating back and forth with it. It is capable of scanning bills of different widths and thicknesses; it has a built-in feeder that takes in bills as they are fed, similar to a fax machine where the fax page is swept in.

The scanner 1 is connected to a computer 2 using a USB port as illustrated in Fig. 1. Before scanning, turn-on the scanner 1 and the computer 2. Open the software program by clicking on the icon displayed on the screen (see the monitor 3 in Fig. 1). When the program is loaded into the computer 2 it automatically creates an icon on the screen (see the monitor 3 in Fig. 1). The software opens a window displaying two options, to open an existing file or to open a new file. In the case of a new file, it allows you to select the name of the new file by typing it in. Once a file is selected, it displays “ready for scanning.” Now you can feed the bills into the scanner 1 one at a time. Click “scanning complete” once you have finished scanning all the bills. You will find that all the information from the scanned bills is automatically entered into the computer 2. Each bill is entered as a separate transaction using preselected, or default categories. You have the flexibility to change the categories any time and reconcile. Now the software program in the computer 2 has organized all the information. This new or updated file is ready for viewing on the screen (see the monitor 3 in Fig.1) and/or for printing (see the printer 4 in the Fig.1). Also, after viewing the file, if needed you can modify or edit each

transaction. Further, the software also allows for record keeping, budgeting and reconciliation.

Thus, the system “Bills Scanner and Financial Organizer” is an apparatus to scan bills and unique software to automatically organize all the information from the scanned bills; it is connected to a computer 2 through a USB port and the unique software program loaded into the program. When bills are fed into, it automatically enters all the information into the computer 2 that is connected to it instead of manual typing in. As bills are scanned, all the information from the bills is automatically entered into computer 2; unique software program operating within the computer 2 processes all the information from the scanned bills and organizes it. It allows editing the information from the scanned bills and organized data. This organized data can be viewed in various formats, namely, tabular form, pie-chart form, etc. The tabular data formats include income-expense reports, planned versus actual budget, list of all expenses with different categories, etc. It further processes the data and enables comparison with pre-customized budgets or limits in each category;

It also allows QIF formatted data to be imported into any financial organizer program like Quicken, Money, etc.

POSSIBLE EXTENSIONS

It even comes up with suggestions and recommendations using its large up-to-date data base, namely, how you can save on groceries, how you can improve your health habits, how you can save on insurance, how you can save on travel, compares expenses each month with the previous month, prompts you when certain payments might have to be made, projects certain future expenses using data it has compiled (like birth days, marriage days, etc), how you can maintain budget by changing where you buy or what brand name item you buy, gathers